

California Laws *for*

**Water Wells
Monitoring Wells
Cathodic Protection Wells
Geothermal Heat Exchange Wells**



**State of California
Department of Water Resources
Division of Planning and Local Assistance**

March 2003

To get additional copies of this booklet write or call:

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**Water Wells
Monitoring Wells
Cathodic Protection Wells
Geothermal Heat Exchange Wells**

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State of California
Department of Water Resources
Division of Planning and Local Assistance

March 2003

Table of Contents

Introduction	4
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Water Code

DIVISION 1. GENERAL STATE POWERS OVER WATER

Chapter 2.5. Miscellaneous Powers of Department	5
--	----------

Article 2. Surveys, Investigations, and Distribution of Water	5
--	----------

Section: 231	5
--------------------	---

Article 4. Waste from Artesian Wells	5
---	----------

Sections: 300, 301, 302	5
-------------------------------	---

Sections: 303, 304, 305, 306, 307, 308, 309, 310, 311	6
---	---

DIVISION 7. WATER QUALITY

Chapter 10. Water Wells, Cathodic Protection Wells, Monitoring Wells, and Geothermal Heat Exchange Wells	7
---	----------

Article 1. Declaration of Policy	7
---	----------

Sections: 13700, 13701	7
------------------------------	---

Article 2. Definitions	7
-------------------------------------	----------

Section: 13710	7
----------------------	---

Sections: 13711, 13712, 13712.5, 13713	8
--	---

Article 3. Reports	8
---------------------------------	----------

Sections: 13750.5, 13751	8
--------------------------------	---

Sections: 13752, 13753, 13754, 13755	10
--	----

Article 4. Quality Control	10
---	-----------

Section: 13800	10
----------------------	----

Section: 13800.5	11
------------------------	----

Section: 13801	12
----------------------	----

Sections: 13802, 13803, 13804, 13805	13
--	----

Section: 13806	14
----------------------	----

Table of Contents

Health & Safety Code

DIVISION 104. PART 9.5

Abandoned Excavations 14

Section: 115700 14

Sections: 115705, 115710, 115715, 115720 16

Introduction

This booklet contains California State statutes that relate directly to the construction, alteration, maintenance, and destruction of:

- water wells
- monitoring wells
- cathodic protection wells
- geothermal heat exchange wells

Laws relating directly to the following are not included:

- high-temperature geothermal wells
- oil and gas wells
- waste injection wells
- local ordinances pertaining to well construction, alteration, and destruction
- specific requirements for waste disposal site monitoring wells
- groundwater “rights”
- licensing of well drilling contractors

Questions concerning this booklet should be directed to:

Well Standards Coordinator
Department of Water Resources
Division of Planning and Local Assistance
P. O. Box 942836
Sacramento, CA 94236-0001
(916) 651-9649

Addresses and telephone numbers for other California agencies that deal with groundwater or wells are listed on the inside of the back cover of this booklet.

Water Code

DIVISION 1. GENERAL STATE POWERS OVER WATER

Chapter 2.5. Miscellaneous Powers of Department*

Article 2. Surveys, Investigations, and Distribution of Water

- 231.** The department, either independently or in cooperation with any person or any county, state, federal or other agency, shall investigate and survey conditions of damage to quality of underground waters, which conditions are or may be caused by improperly constructed, abandoned or defective wells through the interconnection of strata or the introduction of surface waters into underground waters. The department shall report to the appropriate California regional water quality control board its recommendations for minimum standards of well construction in any particular locality in which it deems regulation necessary to protection of quality of underground water, and shall report to the Legislature from time to time, its recommendations for proper sealing of abandoned wells.

Article 4. Waste from Artesian Wells

- 300.** For the purposes of this article, an artesian well is any artificial hole made in the ground through which water naturally flows from subterranean sources to the surface of the ground for any length of time.
- 301.** For the purposes of this article, waste is the causing, suffering, or permitting any water flowing from an artesian well, to run either:
- (a) Into any natural watercourse or channel, or into any bay or pond, unless the water is used thereafter for irrigation or domestic use.
 - (b) Into any street, road, or highway.
 - (c) Upon the land of any person or upon the public land of the United States or of the State, unless it is used thereon for irrigation, domestic use, or the propagation of fish.
- 302.** The use of any water flowing from an artesian well for the irrigation of land, whenever over 5 per cent of the water received on the land for irrigation purposes is permitted to escape from the land, is waste within the meaning of this article.

* “Department” is the California Department of Water Resources

- 303.** Nothing in this article prevents the running of artesian water into an artificial pond or storage-reservoir, if the water is used thereafter for a beneficial use.
- 304.** A beneficial use under the next preceding section shall not exceed one tenth of one miner's inch of water per acre, perpetual flow, but the person using the water may cumulate that amount within any period of each year.
- 305.** Any artesian well which is not capped or equipped with a mechanical appliance which will readily and effectively arrest and prevent the flow of any water from the well is a public nuisance.
- 306.** The owner, tenant, or occupant of the land upon which a well which is a public nuisance under the next preceding section is situated, who causes, permits, or suffers such public nuisance to exist or continue is guilty of a misdemeanor.
- 307.** Any person owning, possessing, or occupying any land upon which is situated an artesian well, who causes, suffers, or permits water unnecessarily to flow from the well or to go to waste is guilty of a misdemeanor.
- 308.** Each day's continuance of waste constitutes a new offense.
- 309.** Any person who violates any of the provisions of this article is punishable for each offense by a fine of not less than fifty dollars (\$50) and not more than one thousand dollars (\$1,000) or by imprisonment in the county jail for not more than six months, or by both.
- 310.** All prosecutions for the violation of any of the provisions of this article shall be instituted in the municipal court of the county in which the well is situated, or in the superior court in a county in which there is no municipal court.
- 311.** Any fine imposed under the provisions of this article may be collected as in other criminal cases, and the justice may also issue an execution upon the judgment therein rendered, which may be enforced and collected as in civil cases.

DIVISION 7. WATER QUALITY

Chapter 10. Water Wells, Cathodic Protection Wells, Monitoring Wells, and Geothermal Heat Exchange Wells

Article 1. Declaration of Policy

13700. The Legislature finds that the greater portion of the water used in this state is obtained from underground sources and that those waters are subject to impairment in quality and purity, causing detriment to the health, safety and welfare of the people of the state. The Legislature therefore declares that the people of the state have a primary interest in the location, construction, maintenance, abandonment, and destruction of water wells, cathodic protection wells, groundwater monitoring wells, and geothermal heat exchange wells, which activities directly affect the quality and purity of underground waters.

13701. The Legislature finds and declares all of the following:

- (a) Improperly constructed and abandoned water wells, cathodic protection wells, groundwater monitoring wells, and geothermal heat exchange wells can allow contaminated water on the surface to flow down the well casing, thereby contaminating the usable groundwater.
- (b) Improperly constructed and abandoned water wells, cathodic protection wells, groundwater monitoring wells, and geothermal heat exchange wells can allow unusable or low quality groundwater from one groundwater level to flow along the well casing to usable groundwater levels, thereby contaminating the usable groundwater.
- (c) Contamination of groundwater poses serious public health and economic problems for many areas of the state.

Article 2. Definitions

13710. "Well" or "water well" as used in this chapter, means any artificial excavation constructed by any method for the purpose of extracting water from, or injecting water into, the underground. This definition shall not include: (a) oil and gas wells, or geothermal wells constructed under the jurisdiction of the Department of Conservation, except those wells converted to use as water wells; or (b) wells used for the purpose of (1) dewatering excavation during construction, or (2) stabilizing hillsides or earth embankments.

- 13711.** "Cathodic protection well," as used in this chapter, means any artificial excavation in excess of 50 feet constructed by any method for the purpose of installing equipment or facilities for the protection electrically of metallic equipment in contact with the ground, commonly referred to as cathodic protection.
- 13712.** "Monitoring well" as used in this chapter, means any artificial excavation by any method for the purpose of monitoring fluctuations in groundwater levels, quality of underground waters, or the concentration of contaminants in underground waters.
- 13712.5.** Notwithstanding Section 13712, all wells constructed for the purpose of monitoring the presence of groundwater which has adversely affected, or threatens to adversely affect, crop root zones are exempt from the reporting requirements of this chapter.
- 13713.** "Geothermal heat exchange well," as used in this chapter, means any uncased artificial excavation, by any method, that uses the heat exchange capacity of the earth for heating and cooling, in which excavation the ambient ground temperature is 30 degrees Celsius (86 degrees Fahrenheit) or less, and which excavation uses a closed loop fluid system to prevent the discharge or escape of its fluid into surrounding aquifers or other geologic formations. Geothermal heat exchange wells include ground source heat pump wells.

Article 3. Reports

- 13750.5.** No person shall undertake to dig, bore, or drill a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, to deepen or reperform such a well, or to abandon or destroy such a well, unless the person responsible for that construction, alteration, destruction, or abandonment possesses a C-57 Water Well Contractor's License.
- 13751.** (a) Every person who digs, bores, or drills a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, abandons or destroys such a well, or deepens or reperformates such a well, shall file with the department a report of completion of that well within 60 days from the date its construction, alteration, abandonment, or destruction is completed.
- (b) The report shall be made on forms furnished by the department and shall contain information as follows:

- (1) In the case of a water well, cathodic protection well, or groundwater monitoring well, the report shall contain information as required by the department, including, but not limited to all of the following information:
 - (A) A description of the well site sufficiently exact to permit location and identification of the well.
 - (B) A detailed log of the well.
 - (C) A description of type of construction.
 - (D) The details of perforation.
 - (E) The methods used for sealing off surface or contaminated waters.
 - (F) The methods used for preventing contaminated waters of one aquifer from mixing with the waters of another aquifer.
 - (G) The signature of the well driller.
- (2) In the case of a geothermal heat exchange well, the report shall contain all of the following information:
 - (A) A description of the site that is sufficiently exact to permit the location and identification of the site and the number of geothermal heat exchange wells drilled on the same lot.
 - (B) A description of borehole diameter and depth and the type of geothermal heat exchange system installed.
 - (C) The methods and materials used to seal off surface or contaminated waters.
 - (D) The methods used for preventing contaminated water in one aquifer from mixing with the water in another aquifer.
 - (E) The signature of the well driller.

- 13752.** Reports made in accordance with paragraph (1) of subdivision (b) of Section 13751 shall not be made available for inspection by the public, but shall be made available to governmental agencies for use in making studies, or to any person who obtains a written authorization from the owner of the well. However, a report associated with a well located within two miles of an area affected or potentially affected by a known unauthorized release of a contaminant shall be made available to any person performing an environmental cleanup study associated with the unauthorized release, if the study is conducted under the order of a regulatory agency. A report released to a person conducting an environmental cleanup study shall not be used for any purpose other than for the purpose of conducting the study.
- 13753.** Every person who hereafter converts, for use as a water well, cathodic protection well, or monitoring well, any oil or gas well originally constructed under the jurisdiction of the Department of Conservation pursuant to Article 4 (commencing with Section 3200) of Chapter 1 of Division 3 of the Public Resources Code, shall comply with all provisions of this chapter.
- 13754.** Failure to comply with any provision of this article, or willful and deliberate falsification of any report required by this article, is a misdemeanor. Before commencing prosecution against any person, other than for willful and deliberate falsification of any report required by this article, the person shall be given reasonable opportunity to comply with the provisions of this article.
- 13755.** Nothing in this chapter shall affect the powers and duties of the State Department of Health Services with respect to water and water systems pursuant to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code. Every person shall comply with this chapter and any regulation adopted pursuant thereto, in addition to standards adopted by any city or county.

Article 4. Quality Control

- 13800.** The department, after such studies and investigations pursuant to Section 231 as it finds necessary, on determining that water well, cathodic protection well, and monitoring well construction, maintenance, abandonment, and destruction standards are needed in an area to protect the quality of water used or which may be used for any beneficial use, shall so report to the appropriate regional water quality control board and to the State Department of Health Services. The report shall contain such recommended standards for water well and cathodic protection well, and monitoring well construction, mainte-

nance, abandonment, and destruction as, in the department's opinion, are necessary to protect the quality of any affected water.

- 13800.5.** (a) (1) The department shall develop recommended standards for the construction, maintenance, abandonment, or destruction of geothermal heat exchange wells.
- (2) Until the department develops recommended standards pursuant to paragraph (1), a local enforcement agency with authority over geothermal heat exchange wells may adopt temporary regulations applicable to geothermal heat exchange wells that the local enforcement agency determines to be consistent with the intent of existing department standards to prevent wells from becoming conduits of contamination.
- (3) The department, not later than July 1, 1997, shall submit to the state board a report containing the recommended geothermal heat exchange well standards.
- (b) The state board, not later than January 1, 1998, shall adopt a model geothermal heat exchange well ordinance that implements the recommended standards developed by the department pursuant to subdivision (a). The state board shall circulate the model ordinance to all cities and counties.
- (c) Notwithstanding any other provision of law, each county, city, or water agency, where appropriate, not later than April 1, 1998, shall adopt a geothermal heat exchange well ordinance that meets or exceeds the recommended standards developed by the department pursuant to subdivision (a). If a water agency that has permit authority over well drilling adopts a geothermal heat exchange well ordinance that meets or exceeds the recommended standards developed by the department pursuant to subdivision (a), a county or city shall not be required to adopt an ordinance for the same area.
- (d) If a county, city, or water agency, where appropriate, fails to adopt an ordinance that establishes geothermal heat exchange well standards, the model ordinance adopted by the state board pursuant to subdivision (b) shall take effect on May 1, 1998, and shall be enforced by the county or city and have the same force and effect as if adopted as a county or city ordinance.

- 13801.** (a) The regional board, upon receipt of a report from the department pursuant to Section 13800, shall hold a public hearing on the need to establish well standards for the area involved. The regional board may hold a public hearing with respect to any area regardless of whether a report has been received from the department if it has information that standards may be needed.
- (b) Notwithstanding subdivision (a), the state board shall, not later than September 1, 1989, adopt a model water well, cathodic protection well, and monitoring well drilling and abandonment ordinance implementing the standards for water well construction, maintenance, and abandonment contained in Bulletin 74-81 of the department. If the model ordinance is not adopted by this date, the state board shall report to the Legislature as to the reasons for the delay. The state board shall circulate the model ordinances to all cities and counties.
- (c) Notwithstanding any other provision of law, each county, city, or water agency, where appropriate, shall, not later than January 15, 1990, adopt a water well, cathodic protection well, and monitoring well drilling and abandonment ordinance that meets or exceeds the standards contained in Bulletin 74-81. Where a water agency which has permit authority over well drilling within the agency adopts a water well, cathodic protection well, and monitoring well drilling and abandonment ordinance that meets or exceeds the standards contained in Bulletin 74-81, a county or city shall not be required to adopt an ordinance for the same area.
- (d) If a county, city, or water agency, where appropriate, fails to adopt an ordinance establishing water well, cathodic protection well, and monitoring well drilling and abandonment standards, the model ordinance adopted by the state board pursuant to subdivision (b) shall take effect on February 15, 1990, and shall be enforced by the county or city and have the same force and effect as if adopted as a county or city ordinance.
- (e) The minimum standards recommended by the department and adopted by the state board or local agencies for the construction, maintenance, abandonment, or destruction of monitoring wells or class 1 hazardous injection wells shall not be construed to limit, abridge, or supersede the powers or duties of the State Department of Health Services in their application of standards to the construction, maintenance, abandonment, or destruction of monitoring wells or class 1 hazardous injection wells at facilities which

treat, store, or dispose of hazardous waste or at any site where the State Department of Health Services is the lead agency responsible for investigation and remedial action at that site, as long as the standards used by the State Department of Health Services meet or exceed those in effect by any city, county, or water agency where appropriate, responsible for developing ordinances for the area in question.

- 13802.** If the regional board finds that standards of water well, cathodic protection well, and monitoring well construction, maintenance, abandonment, and destruction are needed in any area to protect the quality of water used, or which may be used, for any beneficial use, it shall determine the area to be involved and so report to each affected county and city in the area. The report shall also contain any well standards which have been recommended by the department.
- 13803.** Each such affected county and city shall, within 120 days of receipt of the report, adopt an ordinance establishing standards of water well, cathodic protection well, and monitoring well construction, maintenance, abandonment, and destruction for the area designated by the regional board. Prior to adoption of the ordinance each affected county and city shall consult with all interested parties, including licensed well drillers. A copy of the ordinance shall be sent to the regional board on its adoption and the regional board shall transmit the ordinance to the department for its review and comments.
- 13804.** Such county and city well standards shall take effect 60 days from the date of their adoption by the county or city unless the regional board, on its own motion, or on the request of any affected person, holds a public hearing on the matter and determines that the county or city well standards are not sufficiently restrictive to protect the quality of the affected waters. If the board makes such a determination it shall so report to the affected county or city and also recommend the well standards, or the modification of the county or city well standards, which it determines are necessary.
- 13805.** If a county or city fails to adopt an ordinance establishing water well, cathodic protection well, and monitoring well construction, maintenance, abandonment, and destruction standards within 120 days of receipt of the regional board's report of its determination and those standards are necessary pursuant to Section 13802, or fails to adopt or modify those well standards in the manner determined as necessary by the regional board pursuant to Section 13804 within 90 days of receipt of the regional board's report, the regional board shall adopt standards

for water well, cathodic protection well, and monitoring well construction, maintenance, abandonment, and destruction for the area. The regional board well standards shall take effect 30 days from the date of their adoption by the regional board and shall be enforced by the city or county and have the same force and effect as if adopted as a county or city ordinance.

13806. Any action, report, or determination taken or adopted by a regional board or any failure of a regional board to act pursuant to this article, or any county or city ordinance in the event of the failure of a regional board to review such ordinance pursuant to Section 13804, may be reviewed by the state board on its own motion, and shall be reviewed by the state board on the request of any affected county or city, in the same manner as other action or inaction of the regional board is reviewed pursuant to Section 13320. The state board has the same powers as to the review of action or inaction of a regional board or of a county or city ordinance under this article as it has as to other action or inaction of a regional board under Section 13320, including being vested with all the powers granted a regional board under this article, with like force and effect if it finds that appropriate action has not been taken by a regional board. Any action of a regional board under this article or any county or city ordinance affected by the review of the state board shall have no force or effect during the period of the review by the state board.

Health & Safety Code

DIVISION 104. PART 9.5

Abandoned Excavations

- 115700.** (a) Every person owning land in fee simple or in possession thereof under lease or contract of sale who knowingly permits the existence on the premises of any abandoned mining shaft, pit, well, septic tank, cesspool, or other abandoned excavation dangerous to persons legally on the premises, or to minors under the age of 12 years, who fails to cover, fill, or fence securely that dangerous abandoned excavation and keep it so protected, is guilty of a misdemeanor.
- (b) Every person owning land in fee simple or in possession thereof under lease or contract of sale who knowingly permits the existence on the premises of any permanently inactive well, cathodic protection well, or monitoring well that constitutes a

known or probable preferential pathway for the movement of pollutants, contaminants, or poor quality water, from above ground to below ground, or vertical movement of pollutants, contaminants, or poor quality water below ground, and that movement poses a threat to the quality of the waters of the state, shall be guilty of a misdemeanor.

- (c) For purposes of this section, "well" includes any of the following:
 - (1) A "monitoring well" as defined by Section 13712 of the Water Code.
 - (2) A "cathodic well" as defined by Section 13711 of the Water Code.
 - (3) A "water well" as defined by Section 13710 of the Water Code.
- (d) A "permanently inactive well" is a well that has not been used for a period of one year, unless the person owning land in fee simple or in possession thereof under lease or contract of sale demonstrates an intent for future use for water supply, groundwater recharge, drainage, or groundwater level control, heating or cooling, cathodic protection, groundwater monitoring, or related uses. A well owner shall provide evidence to the local health officer of an intent for future use of an inactive well by maintaining the well in a way that the following requirements are met:
 - (1) The well shall not allow impairment of the quality of water within the well and groundwater encountered by the well.
 - (2) The top of the well or well casing shall be provided with a cover, that is secured by a lock or by other means to prevent its removal without the use of equipment or tools, to prevent unauthorized access, to prevent a safety hazard to humans and animals, and to prevent illegal disposal of wastes in the well. The cover shall be watertight where the top of the well casing or other surface openings to the well are below ground level, as in a vault or below known levels of flooding. The cover shall be watertight if the well is inactive for more than five consecutive years. A pump motor, angle drive, or other surface feature of a well, when in compliance with the above provisions, shall suffice as a cover.

- (3) The well shall be marked so as to be easily visible and located, and labeled so as to be easily identified as a well.
- (4) The area surrounding the well shall be kept clear of brush, debris, and waste materials.
- (e) At a minimum, permanently inactive wells shall be destroyed in accordance with standards developed by the Department of Water Resources pursuant to Section 13800 of the Water Code and adopted by the State Water Resources Control Board or local agencies in accordance with Section 13801 of the Water Code. Minimum standards recommended by the department and adopted by the state board or local agencies for the abandonment or destruction of groundwater monitoring wells or class 1 hazardous injection wells shall not be construed to limit, abridge, or supersede the powers or duties of the department, in accordance with Section 13801 of the Water Code.
- (f) Nothing in this section is a limitation on the power of a city, county, or city and county to adopt and enforce additional penal provisions regarding the types of wells and other excavations described in subdivisions (a) and (b).

- 115705.** The board of supervisors may order securely covered, filled, or fenced abandoned mining excavations on unoccupied public lands in the county.
- 115710.** The board of supervisors shall order securely fenced, filled, or covered any abandoned mining shaft, pit, or other excavation on unoccupied land in the county whenever it appears to them, by proof submitted, that the excavation is dangerous or unsafe to man or beast. The cost of covering, filling, or fencing is a county charge.
- 115715.** Every person who maliciously removes or destroys any covering or fencing placed around, or removes any fill placed in, any shaft, pit, or other excavation, as provided in this part, is guilty of a misdemeanor.
- 115720.** This part is not applicable to any abandoned mining shaft, pit, well, septic tank, cesspool, or other abandoned excavation that contains a surface area of more than one-half acre.

Additional Sources of Information

Department of Health Services
Division of Drinking Water
and Environmental Management
601 North 7th Street
Sacramento, CA 95814
916/322-2308

State Water Resources Control Board
901 P Street
Sacramento, CA 95814
916/341-5689

Department of Consumer Affairs
Contractors' State License Board
9835 Goethe Road
Sacramento, CA 95827
916/255-3900 —or— 1/800/321-2752

Department of Conservation
Division of Oil, Gas and Geothermal Resources
801 K Street
Sacramento, CA 95814
916/323-1787

State of California—The Resources Agency
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